(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property **Organization**

International Bureau



) (BERG BINKER) (I BIGNE KEN BERK BERK BINK BERK BERK BERK BERK BINK BINK BING BIN ENDER KEN KEN BERK BERK BERK

(43) International Publication Date 13 January 2005 (13.01.2005)

PCT

(10) International Publication Number WO 2005/004359 A1

(51) International Patent Classification7:

H04B 10/17

(21) International Application Number:

PCT/JP2003/008316

(22) International Filing Date:

30 June 2003 (30.06.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(71) Applicant (for all designated States except US): FUJITSU LIMITED [JP/JP]; 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa 211-8588 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HAINBERGER, Rainer [AT/JP]; c/o FUJITSU LIMITED, 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa 211-8588 (JP). WATANABE, Shigeki [JP/JP]; c/o FUJITSU LIMITED, 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa 211-8588 (JP).

(74) Agent: OSUGA, Yoshiyuki; 3rd Fl., Nibancho Bldg., 8-20, Nibancho, Chiyoda-ku, Tokyo 102-0084 (JP).

(81) Designated States (national): JP, US.

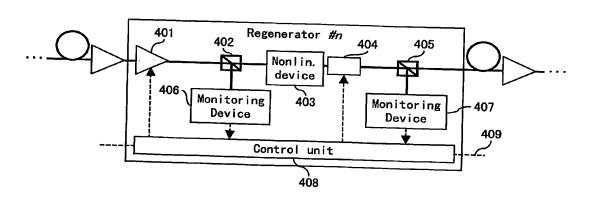
(84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: OPTICAL REGENERATOR IN OPTICAL FIBER COMMUNICATION SYSTEM



(57) Abstract: In an optical fiber communication system, the input power to an all-optical nonlinear device in an optical regenerator is monitored and adjusted such that the regenerator operates at an optimized operation point.